

23

**Notice of Allowability**

Application No.

10/814,083

Applicant(s)

KLOSTER ET AL.

Examiner

William M. Brewster

Art Unit

2823

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11 September 2006.
2. ☒ The allowed claim(s) is/are 18-24 and 38-50.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 090606; 091106
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 100406.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nan-N. Nguy (Reg. No. 55,851) on 4 October 2006.

The application has been amended as follows:

**a) In the Claims:**

In claim 18, line 4, after "substrate" insert --wherein at least one of said interconnect structures is vertically protruding with a flat horizontal surface at the apex of said structure's projection--

line 10, after "thereon" insert --wherein at least one of said second substrate's interconnect structures is vertically protruding with a flat horizontal surface at the apex of said structure's projection--

line 11, after "contact" insert --wherein at least one of said first substrate's interconnect structures' flat horizontal surface contacts at least one of said second substrate's interconnect structures' flat horizontal surface and the body of the said first substrate interconnect structure is in vertical alignment with the body of the said second substrate interconnect structure--

In claim 38, line 4, after "substrate" insert --wherein at least one of said interconnect structures is vertically protruding with a flat horizontal surface at the apex of said structure's projection--

line 9, after "thereon" insert --wherein at least one of said second substrate's interconnect structures is vertically protruding with a flat horizontal surface at the apex of said structure's projection--

line 11, after "contact" insert --wherein at least one of said first substrate's interconnect structures' flat horizontal surface contacts at least one of said second substrate's interconnect structures' flat horizontal surface and the body of the said first substrate interconnect structure is in vertical alignment with the body of the said second substrate interconnect structure--

### **Reasons for Allowance**

The following is an examiner's statement of reasons for allowance: the features of claims 18 and 38 with amendments shown above cannot be properly combined from the prior art of record. In claim 45, the features in lines 6-13,

"a layer of nonconductive compliant material formed on at least a portion of the top surface of the first substrate, at least a portion of the layer of nonconductive compliant material having a top surface lower than a top surface of at least one of said first plurality of interconnect structures; and

a second substrate with a second plurality of interconnect structures formed thereon, said first and second substrates stacked such that at least a portion of the

interconnect structures of said first and second substrates respectively are in direct physical contact, the layer of nonconductive compliant material structurally supporting the stacked substrates,"

cannot be found in the prior art of record. The prior art of record fails to teach, in combination, the process features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

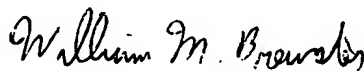
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William M. Brewster whose telephone number is 571-272-1854. The examiner can normally be reached on Full Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2823

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

4 October 2006  
WB

  
WILLIAM M. BREWSTER  
PRIMARY EXAMINER